

REMARKS

Claims 1, 3-4 and 7-11 are pending in the present application. Claim 1 has been amended to recite that the “the organic fine particles exhibit high hardness, have a glass transition temperature of higher than 50°C, are crosslinked substances, and do not melt or decompose during thermal drying of the paint composition”. This amendment to the claims finds support at page 15, lines 22-24 and 30-32 of the specification. This amendment was not earlier presented since the final rejection was the first time that US Patent 5,330,627 to Gutter et al. was cited and applied in a rejection of the claims. The amendment to the claims does introduce any new matter .

Claims 1, 3-4 and 7-11 were rejected under 35 USC 103(a) over US Patent 5,330,627 to Gutter et al. (hereinafter also referred to as “Gutter”). Gutter does not render obvious Claims 1, 3-4 and 7-11.

Gutter suggests a thermosetting coating composition containing (A) one or more binders in liquid or dissolved form and (B) one or more binders in solid, particulate form. However, in the thermosetting coating composition of Gutter, (B) the binders in solid, particulate form are converted into liquid or dissolved form at least at the curing temperature.

On the other hand, the organic fine particles in the paint composition for thermal drying of the present invention do not melt or decompose during thermal drying of the paint composition as recited in the claims.

Usually, since forming a thick film by thermal drying the emulsion, water in a yet-to-be dried film is evaporated after the surface of the film is dried, blisters are generated. Thus, blisters more easily occur as the film thickness increases. On the other hand, in the present invention, the composition contains organic fine particles which have a specific particle diameter and do not melt or decompose during thermal drying of the paint composition. The above-mentioned organic fine particles keep the solid form in the film, and thereby water in the film readily escapes when the emulsion forms a film to protect the occurrence of blisters and to improve the thermal drying characteristics.

Thus, as is described on page 18, line 11-18 of the present specification, the paint composition for thermal drying of the present invention is favorable as a thick film material since

it can develop an excellent thermal drying characteristics. Tables 1 and 2 show that the film thickness of from 1.5mm to 4.5mm (1500 to 4500 μm) prepared from the paint composition of the present invention exhibits good thermal drying characteristics.

In Gutter, all of the coatings disclosed have a thickness of about 20 μm which is much thinner than the films that can be prepared from the paint composition for thermal drying of the present invention.

As explained above, blisters more easier occur as the thickness of the film increases and forming 1.5mm to 4.5mm thick films with no blisters is much more difficult than forming 20 μm thick films with no blisters. The paint composition of the present invention can provide a thicker film than the Gutter without the occurrence of blisters and it has excellent thermal drying characteristics.

In addition, as for vibration damping property, the thicker film has higher loss factor and higher vibration damping property, as shown in Tables 1 and 2 of the present specification. The present invention provides compositions which can form films that are much thicker than Gutter along with suppressing the occurrence of blisters. Also such thick films are advantageous in vibration damping property.

The present invention is achieved by optimization of the components of the composition, especially the organic fine particle and shows superior results and unexpected advantages as compared to the cited art. The cited reference disclosed nothing specifically with respect to the organic fine particle which does not melt or decompose during thermal drying, nor does it focus on the importance of such aspect.

Accordingly, the assertion that the present claims are unpatentable over Gutter et al is untenable, and is respectfully traversed.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 22-0185, under Order No. 21581-00318-US from which the undersigned is authorized to draw.

Application No. 10/779,610
Amendment dated
After Final Office Action of December 1, 2006

Docket No.: 21581-00318-US

Dated:

Respectfully submitted,

Electronic signature: /Burton A. Amernick/
Burton A. Amernick
Registration No.: 24,852
CONNOLLY BOVE LODGE & HUTZ LLP
1990 M Street, N.W., Suite 800
Washington, DC 20036
(202) 331-7111 (Phone)
(202) 293-6229 (Fax)
Attorney for Applicant